# Supplier Quality Requirements Q7000

## Scope

- Performance Test Equipment
- Fixture and Jig Used for Machining /Assembly/Inspection/Performance Test
- ▶ Measuring Machines
- ▶ Inspection Gauges





Doc. Group SQAR

Doc. No. Q7000

Rev. No.	Date	Description	Prepare	Review	Approval
0	2014.10.27	Initial Issue	NI Kim	SW Kim	YH Cho
1	2015.07.17	Add Para 4.1.3  - Additional Q code requirement of SQAR Amend Para 4.4  - Regulatory's authorities Amend Para 4.6  - Control of subcontracting Amend Para 4.7  - Technical data control process of supplier	KH Jung	SW Kim	YH Cho



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### 1. Purpose

This requirements specifies quality assurance requirements for test equipments, inspection devices, gauges, jigs, and fixtures product that are outsourced to the suppliers of Hanwha Corporation Aerospace Division(hereafter "Hanwha").

### 2. Scope

2.1 The outsourced items are classified according to the criteria below.

Class	Туре	Remark		
Group 7A	inspection equipment (manufacturer's standard models)	3D measuring equipment, projector, tensile strength measuring equipment etc		
Group 7B	inspection equipment (customized)	performance test equipment		
Group 7C	jigs & fixtures used for machining/assembly/in- spection/performance test			
Group 7D	measuring machines (manufacturer's standard models)	micrometer, vernier caliper etc		
Group 7E inspection gauges (customized)		limiting gauge		

### 2.2 Relations to other requirements

Suppliers shall meet all the requirements on the contract and are responsible for providing the relevant products and services to Hanwha. If the requirements on the contract do not conform to the this SQAR the priority shall be given to the requirements of the contract.

- 2.3 If the requirements on this SQAR cannot be met, the suppliers must notify Hanwha and discuss prior to signing the contracts and receiving the purchase orders.
- 2.4 Suppliers shall refer to the latest revision of this requirements. When the manufacturing cost increases as a result of revision of the requirements, the suppliers must notify Hanwha's purchasing department for discussion.

### 3. Applicable Documentations

3.1 International Standards

Web site address: http://www.iso.ch

http://www.standard.go.kr

3.1.1 ISO 9001 "Quality Management Systems - Requirement"

3.1.2 ISO 17025 "General requirements for the competence of testing and calibration laboratories



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3.2 Hanwha Engineering Documentations

Quality and engineering documentations applied on the drawings and specifications of the items found on the contract or purchase order.

### 4. General Requirements

- 4.1 Supplier shall meet the following quality requirements in addition to the quality assurance system specified in this document.
  - 4.1.1 Quality assurance/inspection requirements specified on the drawing and specification of the product.
  - 4.1.2 Quality assurance/inspection requirements stated on the relevant government policy and contract related documents.
  - 4.1.3 Additional quality requirements(Q0000) stipulated in the purchase order with Q7000.
- 4.2 Suppliers shall perform inspection on all the products prior to shipping them to Hanwha, and the relevant inspection data package must also be submitted to Hanwha.
- 4.3 Hanwha and Hanwha's customers <u>or regulatory agencies</u> are authorized to evaluate suitability of the quality management system and the products on the site in order to approve them according to the requirements of the contract.
- 4.4 Hanwha and its customers are authorized to evaluate suitability of the quality management system and the products on the site in order to approve them according to the requirements of the contract.
  - 4.4.1 Suppliers shall provide quality records, equipments, and personnels required for such evaluation and verification.
  - 4.4.2 Suppliers shall not utilize such verification method used by Hanwha as a means of accepting products.
- 4.5 Suppliers shall ensure that its employees are aware of all the quality assurance requirements and apply them to production of the relevant items.

### 4.6 Control of subcontracting

4.6.1 Suppliers shall not outsource and procure any items on the purchase order from Hanwha without any prior approval, and any violation to this could result in void of the contract and compensation of any incurred financial loss.



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- 4.6.2 Suppliers shall confirm and guarantee the compliances of sub-contractors based on Hanwha SQARs such as production processes, quality assurance activities and its control. In addition, suppliers shall flow-down Hanwha SQARs to sub-contractors and get prior approvals from Hanwha in writing when they need to use any sub-contractors for outsourcing operations and procurements.
- 4.7 Suppliers shall establish proper procedures to control and comply with all technical and engineering data(including digital data) which are provided by Hanwha and generated by suppliers. Unless otherwise requested by Hanwha, suppliers shall only use the latest and validated revision level, and apply them to each production exactly. If any technical and engineering data related to delivery items need to be changed, suppliers shall inform and discuss with Hanwha in advance.

### 5. Additional Quality Assurance Requirements

### 5.1 Test/Inspection Equipment: GROUP 7B

- 5.1.1 All test/inspection equipment components which have factors potentially influencing test/inspection result shall be calibrated by an authorized calibration agency, and the calibration report shall be delivered with the products.
- EX) Examples of components that could influence test/inspection result: power supply, interface fixture etc.
- 5.1.2 Test/inspection equipment shall meet the requirements of contract/engineering document(manufacturing specification etc) for the particular product, and the acceptance test report shall be attached so that it can be objectively verified whether the requirements are met.
- 5.1.3 Manufacturer of test/inspection equipment shall provide an operational manual including a list of the components and specification. The operational manual shall include the following information.
  - 5.1.3.1 Calibration Criteria of the Equipment
  - 5.1.3.2 How to operate the S/W
- 5.1.4 If verification is required prior to delivery of test/inspection equipment, Hanwha is authorized to verify the suitability of the equipment at the supplier's facility prior to delivery. The suppliers shall support the Hanwha inspectors on their verification process.



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- 5.1.5 Suppliers which manufacture test/inspection equipments shall control traceability records for all raw material/parts and components used in the assembly of the test/inspection equipment from the original suppliers, and these records shall be included in delivery documents.
- 5.1.6 Suppliers which manufacture test/inspection equipments shall perform inspection on every component of the equipment and maintain the inspection records.

### 5.2 Jigs & Fixtures for Machining/Assembly/Inspection/Performance Test : Group 7C

5.2.1 Jigs and fixtures used for inspection/verification shall be manufactured to meet the requirement of the drawings registered by Hanwha. The inspection reports which are included in all the requirements of the drawings shall be delivered along with the jigs and fixtures.

### 5.3 Inspection Gauge (Customized): Group 7E

5.3.1 Gauges shall be delivered with their inspection report included in all the requirements, and calibration reports from an authorized calibration agency shall be delivered together with gauges if required by Hanwha.

### 6. Delivery

- 6.1 Suppliers shall devise a means of preventing damage and corrosion of products during their delivery by predicting various circumstances that may affect the conditions of the products.
- 6.2 Certificate of conformance shall be enclosed with other delivery documents referred to Para 5.